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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/751,530

01/06/2004

Junichi Komagata

SON-2895

3306

23353 7590 01/28/2011  
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EXAMINER

SOL, ANTHONY M

ART UNIT

PAPER NUMBER

2465

MAIL DATE

DELIVERY MODE

01/28/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/751,530

Applicant(s)

KOMAGATA ET AL.

Examiner

ANTHONY SOL

Art Unit

2465

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 27-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

- In view of the appeal brief filed on 11/2/2010, PROSECUTION IS  
HEREBY REOPENED. New grounds of rejection are set forth below.  
To avoid abandonment of the application, appellant must exercise one of  
the following two options:  
  
(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a  
reply under 37 CFR 1.113 (if this Office action is final); or,  
  
(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31  
followed by an appeal brief under 37 CFR 41.37. The previously paid  
notice of appeal fee and appeal brief fee can be applied to the new  
appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been  
increased since they were previously paid, then appellant must pay the  
difference between the increased fees and the amount previously paid.  
  
A Supervisory Patent Examiner (SPE) has approved of reopening  
prosecution by signing below:  
  
/Jayanti K. Patel/  
  
Supervisory Patent Examiner, Art Unit 2465
- Claims 27-48 remain pending.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 27, 28, 31, 32, 36, 37, 39, 40, and 44 are rejected under 35 U.S.C. 102(e) as being anticipated by Pub. No. US 2003/0189943 A1 ("Gorti").

Regarding claims 27, 28, 32, 36, 39, 40, and 44,

Gorti discloses confirming presence or absence of a real time packet request, said real time packet request commanding a stream transmitting portion to schedule a transmission of a real time packet, confirming presence or absence of a non-real time packet request only after confirming the absence of said real time packet request, said non-real time packet request commanding said stream transmitting portion to schedule a transmission of a non-real time packet (para. 32).

Regarding claims 31 and 37,

Gorti discloses a flow controller 202D that may be associated with a class of packets, e.g., packets containing electronic mail data (claimed *text data*)(para. 27).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 35 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorti in view of Pub. No. US 2004/0160971 A1 ("Krause").

Regarding claims 35 and 38,

Gorti discloses a flow controller 202B may be associated with a class of packets, e.g., packets containing streaming radio broadcast data (claimed *audio data*)(para. 27)

Gorti does not disclose streams of moving picture packetized into streams of real time packets.

Krause discloses a packet within a stream of real-time video (para. 33).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the classification of real-time packets as taught by Gorti (para. 27) to include video as taught by Krause (para. 33). One skilled in the art would have been motivated to make the combination since packets that are urgent to be processed (e.g. video) may be referred to as real-time packets (Gorti, Abstract).

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5. Claims 29, 30, 34, 41, and 45-48, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorti in view of CA 2410773 A1 ("Shiota"). Note that Shiota is a publication of a Canadian patent application.

Regarding claims 29, 46, and 47,

Gorti does not explicitly disclose that the scheduling times for the real time packets are compared to a transmission end time for the non-real time packet, said non-real time packet being transmitted prior to transmissions of the real time packets when said transmission end time for the non-real time packet occurs before any of the scheduling times.

Shiota discloses that if the packet queued last in the scheduling queue 31 is a "low priority packet", the scheduler section 3 checks whether or not the transmission end time of the "low priority packet" is earlier than the transmission start time of the received "premium packet" (claimed *transmission end time for the non-real time packet occurs before any of the scheduling times*) based on the transmission start time and the packet length of the "low priority packet" (in steps 106 and 107). If the check result shows that the transmission end time of the "low priority packet" is earlier than the transmission start time of the received "premium packet" (YES in the step S107), the scheduler section 3 queues, as one piece of data, information representing that the packet is a "premium packet", the transmission start time information and information on the length of the packet, at the end of the scheduling queue 31 (in steps 107 and 105) (pg. 12, lines 13-24).

Shiota further discloses that the scheduling is thus completed (in a step 112). The scheduler 32 notifies the packet output section 5 of the queue information (indicating the premium packet queue 21 or the low priority packet queue 22) included in the data at the top of the scheduling queue 31 at output start time, and requests the

packet output section 5 to transmit the packet...According to this embodiment, it is possible to transmit the "low priority data" without influencing the transmission of the "premium data" (claimed *non-real time packet being transmitted prior to transmissions of the real time packets*; pg. 14, lines 2-18).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the packet scheduling method of Gorti to transmit "low priority data" prior to transmissions of the real time packets as taught by Shiota. One skilled in the art would have been motivated to make the combination to efficiently transfer "low priority packets" in the spaces between the "premium packets" (Shiota, pg. 4, lines 23-24).

Regarding claims 30, 34, 41, and 45,

Gorti does not explicitly disclose that the non-real time packet is transmitted during a time interval between transmissions of the real time packets when said time interval is longer than a transmission time for the non-real time packet.

Shiota discloses that if the packet queued last in the scheduling queue 31 is a "low priority packet", the scheduler section 3 checks whether or not the transmission end time of the "low priority packet" is earlier than the transmission start time of the received "premium packet" based on the transmission start time and the packet length of the "low priority packet" (in steps 106 and 107). If the check result shows that the transmission end time of the "low priority packet" is earlier than the transmission start time of the received "premium packet" (YES in the step S107), the scheduler section 3



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queues, as one piece of data, information representing that the packet is a "premium packet", the transmission start time information and information on the length of the packet, at the end of the scheduling queue 31 (in steps 107 and 105) (claimed *non-real time packet is transmitted during a time interval between transmissions of the real time packets when said time interval is longer than a transmission time for the non-real time packet*)(pg. 12, lines 13-24; see also fig. 2).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the packet scheduling method of Gorti to transmit "low priority data" during a time interval between transmissions of the real time packets as taught by Shiota. One skilled in the art would have been motivated to make the combination to efficiently transfer "low priority packets" in the spaces between the "premium packets" (Shiota, pg. 4, lines 23-24).

Regarding claim 48,

Gorti disclose that non-real time packet request is a request to transmit a non-real time packet (para. 32).

6. Claims 33, 42, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gorti in view of U.S. Patent No. 5,625,626 ("Umekita").

Regarding claims 33, 42, and 43,

Gorti discloses real-time packets (Abstract).

Gorti does not disclose that a packet is transmitted prior to any other packet based on earlier transmission end time.

Umekita discloses that the transmission order of packets is determined by the shortest time until a transmission end time (col. 17, lines 23-31).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention was made to modify the packet scheduling method of Gorti to transmit packets in order of shortest time until a transmission end time (col. 17, lines 23-31). One skilled in the art would have been motivated to make the combination for automatically determining a transmission order of transmission packets (Umekita, col. 1, lines 38-40).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 27-48 filed in the Appeal Brief of 11/2/2010 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY SOL whose telephone number is (571)272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/A. S./

Examiner, Art Unit 2465

1/28/2011